

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number  
WO 03/090064 A1

(51) International Patent Classification<sup>7</sup>: G06F 5/06, 3/06, H04N 5/907

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(21) International Application Number: PCT/IB03/01579

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 22 April 2003 (22.04.2003)

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 02076559.0 22 April 2002 (22.04.2002) EP

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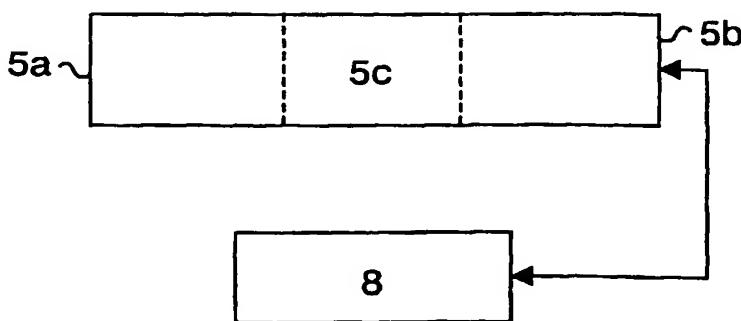
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## Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## (54) Title: CIRCUIT, APPARATUS AND METHOD FOR STORING AUDIOVISUAL DATA



(57) Abstract: Bit-rate scalable compression for storing A/V information in a pause buffer of a digital video recorder, providing a viewer of a live program to take a delayed decision about whether or not to record the program while still viewing the "live" program at full quality, i.e. at a higher quality than the quality at which it will be stored, whereby only the "enhancement layers" need to be stored in the buffer, whereby since the bit rate of these layers is significantly lower than the bit rate for the complete compressed data, the capacity (minutes of recording time) of the buffer is significantly increased.

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## INTERNATIONAL SEARCH REPORT

Intel. Application No  
PCT/IB 03/01579A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G06F5/06 G06F3/06 H04N5/907

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06F H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 295 094 B1 (CUCCIA DAVID W) 25 September 2001 (2001-09-25) column 2, line 39-57; figure 2 ---	1-6
A	US 6 363 440 B1 (STEPP GEORGE THOMAS ET AL) 26 March 2002 (2002-03-26) column 3, line 18 -column 5, line 65; figure 1 ---	1-6
A	EP 0 936 811 A (FUJITSU LTD) 18 August 1999 (1999-08-18) abstract; figures 1,2 ---	1-6



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

23 June 2003

Date of mailing of the International search report

01/07/2003

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB 03/01579

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 6295094	B1	25-09-2001	EP 0935883 A1 WO 9913639 A2 JP 2001507547 T US 2002051621 A1	18-08-1999 18-03-1999 05-06-2001 02-05-2002
US 6363440	B1	26-03-2002	NONE	
EP 0936811	A	18-08-1999	JP 11234599 A DE 69814335 D1 EP 1265441 A1 EP 0936811 A2 US 2001028785 A1	27-08-1999 12-06-2003 11-12-2002 18-08-1999 11-10-2001